UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/954,507	09/12/2001	Richard A. Howes	CISCP041C1	9058

5073 7590 07/05/2005		EXAMINER
BAKER BOTTS L.L.P.		MEHRA, INDER P

BAKER BOTTS L.L.P. 2001 ROSS AVENUE SUITE 600 DALLAS, TX 75201-2980	ART UNIT: 2666 PAPER NUMBER

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)	
Office Action Summary		09/954,507	HOWES ET AL.	
		Examiner	Art Unit	
		Inder P. Mehra	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). .
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>20 February 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>12 September 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This is in response to amendment dated 2/28/2005.

Specification

2.   The disclosure is objected to because of the following informalities:

      a.   Refer to page 11, line 5. "SYN" packet has been used first time here in

         specification. There is no explanation as to its meaning. what "SYN" stand for?.

         Coile ll and Coile l do not discuss its acronym, as to what it stands for. Does it

         mean synchronous?

Appropriate correction is required.

Information Disclosure Statement

3.   The information disclosure statement filed *10/9/01* filed originally was duplicate. IDS

filed on 2/20/2002 was considered.

Oath/Declaration

4.   Oath/Declaration was not received with application.

      Appropriate action be taken to provide it.

Double Patenting

5.   The nonstatutory double patenting rejection is based on a judicially created doctrine
grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal · disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6.   Claims 1-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim1-18 of U.S. Patent No. 6,366,558. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following:

7.   For claims 1-18, the claims 1-6 of patent number 6,366,558 disclose A fault tolerant connection manager system (maintain connection) comprising:

an active connection manager that implements a virtual machine on a physical machine by translating destination IP addresses of incoming packets that have a packet source address that matches a designated foreign IP address and a packet destination address that matches a designated virtual IP address into a designated physical IP address, see claims 1 and 4, (changing the standby connection manager to an active state and translating the destination IP address ----- physical IP address, **as recited in claims 1, 2 and 18**);

a standby configuration connection that transfers configuration information about the virtual machine and the physical machine from the active connection manager to a standby connection

manager (replication packet at a standby connection manager----from active connection

manager, **as recited by claims 1, 5 and 18**); and

the standby connection manager configured to implement the virtual machine on the physical

machine, the standby connection manager including a standby connection object that includes

the designated foreign IP address, the designated virtual IP address and the designated physical

IP address from the replication packet on the standby connection manager (see claim 1),

(receiving replication packet---includes foreign IP address, virtual IP address and physical IP

address), **as recited by claims 1 and 18**.

a fault tolerant connection manager system including: wherein the active connection

manager is configured to send the standby connection manager a replication packet and the

replication packet includes the designated foreign IP address, the designated virtual IP address

and the designated physical IP address (see claim 2),(receiving configuration information –

standby connection manager---), **as recited by claims 12 and 13**.

means for an active connection manager that implements a virtual machine on a physical

machine by translating destination IP addresses of incoming packets that have a packet source

address that matches a designated foreign IP address and a packet destination address that

matches a designated virtual IP address into a designated physical IP address, see claim 3);

means for a standby configuration connection that transfers configuration

information about the virtual machine and the physical machine from the active connection

manager to the standby connection manager; see claim 3, (receiving configuration information -

---, **as recited by claims 12-13**).

For claims 1-18, the claim 14 of Howes'patent number 6,445,704 discloses "A method

of virtualizing a locally initiated outbound connection from a physical machine as recited in

claim 1 wherein the outbound connection from the physical machine is counted along with

inbound connections made to the physical machine for the purpose of *load balancing* new

incoming connections",(wherein the physical machine wherein new connections are distributed

to the physical machine using a load balancing scheme that depends on the number of

connections made to the physical machine, **as recited by claim 11**).

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

9.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Howes et al** (U.S.

Patent No. 6,366,558), hereinafter, Howes in view of **Lin et al** (US patent No. 5,713,017),

hereinafter, Lin.

For claim 3, Howe discloses all limitations of subject matter, with the exception of the

following limitations, which are disclosed by Lin, as follows:

- "updating a physical machine counter in the physical machine object when a

  replication packet is received that includes the physical IP address", (refer to

  replicated servers (physical machines) with IP address, col. 4 line 66 through col. 5

  line 1, and update of counters col. 7 lines 1-5.

It would have been obvious to a person of ordinary skill to combine the capability of

"updating physical machine counter when a replication packet is received including IP address,

as taught by Lin. This capability can be combined in the physical machine of Howes. The

suggestion to do so is motivated in order to keep track of the largest sequence number of

requests which have been completed on the server (physical machine).

10.   Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Howes

et al** (U.S. Patent No. 6,366,558), hereinafter, Howes in view of **Oliver et al** (US patent No.

5,491,694), hereinafter, Oliver.

For claims 14 and 15, Howe discloses all limitations of subject matter, with the exception

of the following limitations, which are disclosed by Oliver, as follows:

- "wherein the replication object also includes a virtual machine port number, **as

   recited by claim 14,** refer to fig. 1, col. 7 line 65 – col. 8 line 25 and col. 17 line 40-

   col. 18 line 17 .

- wherein the replication object also includes a physical machine port number, **as

   recited by claim 14,** refer to col. 17 line 40-col. 18 line 17, fig. 9, and col. 26 lines

   25-30.

It would have been obvious to a person of ordinary skill to combine the capability

Of "the replication object also includes a virtual machine port number and a physical machine

port number. This capability can be combined in the physical machine of Howes. The

suggestion to do so is motivated in order to keep track of the largest sequence number of requests

which have been completed on the server (physical machine).

11.   Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Howes et al**

(U.S. Patent No. 6,366,558), hereinafter, Howes in view of **Monteiro et al** (US patent No.

6,434,622), hereinafter, Montairo.

For claim16, Howe discloses all limitations of subject matter, with the exception of the

following limitations, which are disclosed by Montairo, as follows:

- "wherein the replication object also includes a foreign port number", **as recited by**

  claim 16, refer to col. 1 lines 44-50, and col. 8 line 45-col. 9 line 35.

It would have been obvious to a person of ordinary skill to combine the capability

Of "the replication object also includes a foreign port number", This capability can be

combined in the physical machine of Howes. The suggestion to do so is motivated in order to

keep track of the largest sequence number of requests which have been completed on the server

(physical machine).

12.   Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Howes et al**

(U.S. Patent No. 6,366,558), hereinafter, Howes in view of **Beeler Jr. et al** (US patent

No.5,819,020), hereinafter, Beeler.

For claim17, Howe discloses all limitations of subject matter, with the exception of the

following limitations, which are disclosed by Beeler Jr., as follows:

* "checking the size of the replication packet, **as recited by claim 17,** refer to col. 15

lines 50-57.

It would have been obvious to a person of ordinary skill to combine the capability

Of "checking the size of the replication packet", This capability can be combined in the

physical machine of Howes. The suggestion to do so is motivated in order to keep track of the

largest sequence number of requests which have been completed on the server (physical

machine).

Allowable Subject Matter

13.   Claims 4 and 6-10 are objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

Response to Arguments

14.   Applicant's arguments filed 2/20/2005 have been fully considered but they are not

persuasive.

Applicant argues, ." Applicants respectfully note that none of Claims 1-6 of the '558

Patent recites any "physical machine object that stores a physical IP address of a physical

machine that is available to the active connection manager" or any "virtual machine

object" that stores a virtual IP address of a virtual machine that is implemented on the

active connection manager." As a result, none of Claims 1-6 of the '558 Patent is

coextensive in scope with Claim 1 of the present Application.

In response it is stated that '704 (US Patent No. 6,445,704) disclose explicitly,

"a processor; and computer memory accessible by the processor and configured to store

computer code executable by the processor, ---providing a *virtual machine object* having a

virtual IP address that corresponds to the virtual machine wherein inbound connections directed

to the virtual machine are handled by the physical machine having a physical machine IP

address; providing a static physical machine object wherein the *static physical machine object*

contains the virtual IP address and the physical machine IP address----", refer to claim 32, col.

17 lines 35-50;

Further, '349 (US Patent No. 6,061,349) discloses "wherein the connection objects are

stored in a linked list, see claim 3, col. 15, lines 64-65; "a virtual machine **database** including a

plurality of **virtual machine objects**, each virtual machine object including a virtual machine

object IP address and a virtual machine object port number for a virtual machine supported by

the packet translation system, refer to claim 5 of '349, col. 16 lines 4-9; claim 6 of '349 recites,

"a system as recited in claim 5 wherein the plurality of **virtual machine objects** are stored in a

linked list"; claim 7 of '349 recites. " system as recited in claim 1, further including a physical

machine database including a plurality of physical machine objects including a physical

machine object IP address for each physical machine available to the packet translation

system", refer to col. 16 lines 10-15.

In light of above explanation, arguments by applicant are not persuasive.

15.   Applicant's amendment to claims 1-17 necessitated the new ground(s) of rejection

presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Conclusion

16.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Inder P. Mehra whose telephone number is 571-272-3170. The

examiner can normally be reached on Monday through Friday from 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Inder P Mehra   6/22/05
Examiner
Art Unit 2666

DANG TON
PRIMARY EXAMINER